1-1 Purpose

A. Design.
This guide provides criteria to govern the design of U.S. Army Service Schools, and to aid in the evaluation of such designs. This guide is directed towards improving early design decisions and towards the development of realistic, cost-effective spaces in conjunction with the Army regulations and DoD criteria referenced herein.

B. Planning.
This guide is also intended to provide general guidance for using service personnel and Corps of Engineers field offices in planning facilities for inclusion in military construction programs.

C. Improvement.
It is expected that using service personnel will find additional use for this guide in developing improvements or in better utilizing existing facilities.

1-2 Scope

A. Guide Limitation.
The criteria here in apply to all construction projects for Army Service Schools, whether for new construction or for altering existing space. While this guide is the basic criteria document, it is not intended to provide all of the information required for successful preparation of project designs. Supplementary information must be obtained from the installation to describe the exact requirements of the training program, and the locational constraints and opportunities of the site.

B. Presentation of Criteria.
Following the introduction, the guide contains four additional chapters which pertain to planning and design criteria; one on general design considerations, the second on special design factors, the third on individual space criteria and the fourth on space organization principles. The last chapter of the guide contains illustrative applications of criteria in the form of example designs. These designs are not intended to be definitive designs but to represent possible solutions for different requirements and local situations in order to demonstrate the intent of the guide.

C. Example Designs.
The example designs developed in the last chapter are for four typical training programs generating space requirements for 30,000 sq. ft., 150,000 sq. ft. and 400,000 sq. ft.

1-3 References

A. Functional Needs.
The following Army Regulations and directives are important in understanding the functions of Army training programs.

AR 350-1	Army Training
AR 351-1	Military Education and Training
DA PAM 570-558	Staffing Guide for U.S. Army Service Schools

B. DA Design Criteria.
The following manual is important in understanding the basic criteria governing the planning and design of Department of Army facilities.

Architectural and Engineering Instructions (AEI) — Design Criteria

C. Project Planning.
The following regulations are important in understanding procedures for planning facilities in conjunction with the development of Military Construction, Army (MCA), programs.

AR 415-15 MCA Program Development
AR 415-17 Empirical Cost Estimates for Military Construction

D. Design Execution.
The following Army and Engineer Regulations are important in understanding execution procedures which must be considered in the design of facilities designated for inclusion in MCA programs.

AR 415-20	Project Development and Design Approval
ER 1110-345-100	Design Policy for Military Construction
ER 1110-345-700	Design Analysis
ER 1110-345-710	Drawings
ER 1110-345-720	Specifications

E. Completion Records.
The following regulation is important in understanding the kind of records transferred to the using service upon completion of a project.

AR 415-10 General Provisions for Military Construction

F. Facility Design.
The following Army guides and manuals are important in understanding design requirements of Army service schools .

DG 1110-3-104	Design Guide for Administrative Office Facilities
DG 1110-3-110	Design Guide for Libraries
DG 1110-3-122	Design Guide for Interiors
TM 5-803-5	Installation Design
TM 5-807-10	Signage

TM 5-809-1	Load Assumptions for Buildings
FM 19-30	Physical Security
DA PAM 570-558	Administrative Offices

G. Upgrading Existing Facilities.
The following Army regulations and manuals are important in understanding the procedures involved in upgrading existing facilities.

TM 5-801-1	Historic Preservation-Administration Procedures
TM 5-822-2	General Provision and Geometric Design for Roads, Streets, Walks, and Open Storage Areas
AR 415-35	Minor Construction, Emergency Construction, and Replacement of Facilities Damaged or Destroyed
TRADOC Pamphlet 415-1	Winning Approval for Construction and Renovation of U.S. Army Service Schools

1-4 Emphasis

A. Design Quality.
Emphasis shall be placed on the quality of design since it will vitally affect the longevity, usefulness, efficiency, and attractiveness of the Service School. In addition to life cycle economy and functional efficiency, the overall design should exemplify regional character and an aesthetic rendering of both interior and exterior features.

B. Design Service.
Architects for these facilities should be selected on the basis of a continuing experience in design of educational facilities with similar functional requirements and a demonstrated imaginative approach to building design. They should also be considered for their ability to provide or accomplish professional interior design services.

C. User Information.
Provisions related to the efficient operation and maintenance of the facility shall also be emphasized during design. Information to supplement project completion records should be prepared to instruct the using service on how to gain the most benefit from such provisions.

1-5 Responsibilities

A. Using Service.
The using service for military construction projects is defined in AR 415-10, and its responsibilities are outlined in AR 415-20. The using service is responsible for:

(1) Development of functional requirements in conjunction with the guidelines in this guide.

(2) Justification of functional requirements falling beyond the scope of the guidelines in this guide.

(3) Preparation and submission of the Project Development Brochure (PDB) required by AR 415-20 and outlined in TM 5-800-3.

(4) Obtaining installation action to gain site approval if the project is not sited in accordance with the HQDA approved master plan.

(5) Preparation and submission of DD Form 1391, Military Construction Project Data, and supporting data in accordance with AR 415-15.

(6) Approval of concept designs to certify compliance with functional requirements.

B. Design Agency.
The Corps of Engineers field office responsible for design will:

(1) Insure that the function requirements of the using service are incorporated into the project design.

(2) Insure that the requirements of the using service fall within the scope of the guidelines in this guide.

(3) Insure that all deviations from this guide requested by the using service are adequately explained in project design analysis.

(4) Insure that the quality standards for overall design are emphasized as stated herein.

(5) Insure that the assemblage of user information is complete at the completion of the project, and provided, together with the completion records required by AR 415-10, to the using service.

1-6 Definitions.

A. General.

(1) Requirements.
Quantitative or qualitative factors generated by functional needs.

(2) Criteria:
Quantitative unit measures applied to effectively satisfy requirements.

(3) Design Elements:
Descriptive elements generated by the application of criteria.

(4) Principles:
Rules exemplified in the organization of a building design.

B. Functional.

(1) Applied Training.
Training in which students operate and/or maintain selected items of Army equipment.

(2) Chase:
A continuous vertical channel built into a wall for the purpose of carrying conduit or utilities.

(3) Circulation:
The orderly movement of personnel or vehicles along prescribed routes.

(4) Flexibility:
The capability of responding to new or changing situations; for the purposes of this manual, a facility, building, or room which can be adapted to new situations by expansion or reorganization of internal elements possesses the quality of flexibility.

(5) Functional Affinity:
A causal connection or relationship in function between two activities; for example, classroom instruction in principles and procedures and the applied training in which those principles and procedures are put into practice have a close functional affinity.

(6) Zoning:
The location of activity spaces, utility controls, etc. according to selected characteristics and relationships; for example, zoning activity spaces according to their function, or zoning lighting controls so as to control the lighting in spaces of a particular size.